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PATENT

Attorney Reference Number 6580-61415-01  
Application Number 10/020,518

### Claims

1-2. (canceled)

3. (currently amended) The optical transceiver of ~~claim 2~~ claim 5, wherein the DOE is a transmission hologram.

4. (currently amended) The optical transceiver of ~~claim 2~~ claim 5, wherein the DOE is a reflection hologram.

5. (currently amended) An optical transceiver, comprising:  
a diffractive optical element (DOE);  
an optical support having at least a first surface, a second surface, and a third surface, wherein  
the DOE is attached to the third surface and is configured to direct at least a portion of a free space  
optical signal to the first surface and wherein the first surface has a curvature configured to converge  
the portion of the free space optical signal and direct the converged portion to the second surface, and  
further ~~The optical transceiver of claim 2,~~ wherein the DOE is configured so that the portion of the free  
space optical signal directed by the DOE to the first surface propagates at an angle that is greater than  
or equal to a critical angle with respect to the third surface.

6. (previously presented) The optical transceiver of ~~claim 2~~ claim 5, wherein the DOE is configured to direct free space optical signals in a selected wavelength range to the first surface.

7. (previously presented) The optical transceiver of claim 6, wherein the DOE is configured so that free space optical signals outside of the selected wavelength are not directed to the first surface.

8-48. (canceled)